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September 29, 2008

Ms. Anne Stausboll Interim Chief Investment Officer California Public Employees' Retirement System 400 P Street, Suite 3492 Sacramento, CA 95814

Re: Consultant Review of Internal Risk Managed Absolute Return Strategies (RMARS) Program

Dear Anne,

Wilshire has conducted a review of the internally-managed Risk Managed Absolute Return Strategy's (RM ARS) personnel, investment process, and resources. This review was conducted as part of Wilshire's contractual requirement to periodically review all of the internal asset management functions, and included on-site visits by Wilshire to Union Bank of Switzerland's (UBS) headquarters in Connecticut and to Pacific Alternative Asset Management's (PAAMCO) headquarters in Newport Beach, California, as well as periodic conference calls and in-person meetings with the members CalPERS Staff who serve as the RM ARS team. We also conducted several discussions over the last year with Eric Baggesen, Senior Investment Officer for Global Equities, to review his role with the RM ARS Investment Committee and in the management and oversight process of his Staff. Overall, we are pleased with the quality of the personnel, systems, and processes, and believe that the Investment Committee should continue to support this internal team.

# **Summary of Conclusions**

As will be outlined in the sections that follow, we believe that the RM ARS program is being managed in a manner consistent with the direction from the Investment Committee and in compliance with the RM ARS program's policy. We also found that the two external advisors retained by CalPERS to assist in the areas of research and portfolio management, as well as the third-party data collector and risk aggregator (IFS), make a significant contribution to the overall investment process.

# **Organizational Structure**

Due to the number of parties involved in the portfolio management process, the overall investment process is more complicated than any other internally or externally managed investment portfolio. CalPERS' Staff retains all ultimate decision-making authority in sector allocations and manager selection, but utilizes UBS and PAAMCO for both strategic guidance and individual manager research.

Both UBS and PAAMCO are compensated largely based on the overall performance of the portfolio, and thus have an incentive to assist in improving portfolio returns wherever possible. However, despite a similar overall incentive, the two external firms play different and complementary roles in the management of the portfolio.

Staff is charged with creating the overall asset allocation structure within the RM ARS program, deciding upon the proper allocations to a variety of absolute return strategies currently in the marketplace. This allocation process is accomplished through three main steps. First, both UBS' and PAAMCO's staffs review the RM ARS program's sector allocations and make recommendations to CalPERS Staff as is warranted. Second, Staff models PAAMCO's and UBS' recommended portfolio allocation changes, as well as their own internally-developed asset allocation ideas, using their own internallydeveloped asset allocation software to verify whether the proposed sector allocation changes will improve the expected distribution of monthly and quarterly returns. Input may also be sought from the variety of Funds of Hedge Funds with which CalPERS has invested, or through a variety of other channels and contacts within the hedge fund industry. Second, Staff also conducts its own independent research on sector and manager allocations, with or without input from PAAMCO or UBS, if they believe that the return distribution can be improved. Finally, the RM ARS Staff produces a written recommendation for the new asset allocation, which is presented to the RM ARS Advisory Board for approval. The Advisory Board, consisting of the SIO for Global Equities, SIO for AIM, and RM ARS portfolio manager has final authority over all changes to the program.

If the internal Staff and PAAMCO team is the equivalent of the "portfolio manager", then UBS is the "research analyst". Given budgetary constraints, it is unlikely that CalPERS would be able to assemble a team of research analysts sufficiently large and skilled as to be able to monitor all of the approximately 10,000 absolute return vehicles (hedge funds) currently in operation. As a result, UBS' fund of hedge funds team is primarily responsible for sourcing ideas for new funds in which CalPERS may invest. Managers may be suggested either as a result of a new sector allocation or as a replacement/diversifier for a current fund. Managers recommended by UBS to CalPERS are fully screened and approved for investment in UBS' portfolios through their own due diligence process. CalPERS Staff then takes the process a step further and conducts its own independent due diligence, including on-site visits to each suggested manager, resulting in duplicative reviews of managers. Although some might argue that such a

duplicative effort is a waste of time and resources, we believe that having a complete due diligence conducted by both UBS and Staff allows for twice as many opportunities to spot issues and avoid bad investments. Given the lack of governmental / regulatory oversight in the absolute return industry, two complete sets of due diligence reviews helps to protect CalPERS more than would simply relying on the external advisor. Managers recommended by UBS are also submitted to PAAMCO and/or some of the external fund of hedge funds managers for comment, based on their expertise and familiarity with each candidate manager.

Both third-party advisors (PAAMCO and UBS) are also free to play the opposite roles as they see fit. UBS contributes to the overall portfolio management process by recommending sector allocation changes as necessary, and PAAMCO will discuss managers under consideration that are discovered/proposed by Staff. The major difference between the UBS and PAAMCO relationships is that UBS acts as a source of new manager ideas while PAAMCO serves as a "sounding board" or second opinion for Staff. PAAMCO does not source new ideas for Staff in order to avoid potential conflicts of interest by disadvantaging its asset management clients and is paid a significantly lower fee than is UBS in recognition of the contribution it makes to the investment process.

Finally, beginning in September 2008 all new managers or increased funding to existing managers is reviewed by both CalPERS' legal office and Wilshire to verify that the allocation changes being made my Staff comply with both the policy for the RMARS program and Staff's delegated authority.

# **Investments in Fund of Hedge Funds Portfolios**

Over the last few years, the RM ARS program has added investments in European and Asian Funds of Hedge Funds, a move that we fully support since there are many opportunities outside of the United States that warrant investment by CalPERS yet are beyond the reach of Staff's expertise and resources even with the combined resources of UBS and PAAMCO. Although Staff is beginning to review non-US managers on its own, without having any members of Staff based overseas it is difficult to exercise the same level of due diligence as is currently employed in selecting managers within the US on a frequent basis. As a result, despite the higher cost of investing through Funds of Hedge Funds, (typically an additional layer of management base fees with a possible incentive fee) these overseas partnerships are still the most cost-effective manner for CalPERS to gain most of its exposure to non-US absolute return managers at this time. Non-US Funds of Hedge Funds also provide an opportunity for current Staff to become more familiar with non-US portfolios, potentially laying the groundwork for greater use of direct investments in the future. As Staff continues to expand, and as the assets in the RM ARS program grow, it may become more cost-effective in the future solely to invest directly in non-US absolute return managers, or Staff may determine that some mix of direct investments and funds of funds is the most efficient.

### **Risks**

In this section, we will discuss the risks specific to the investment process, including research and portfolio construction. The risks inherent in absolute return investing are already well documented and therefore not discussed in this section, since they were accepted by the CalPERS Investment Committee when the RM ARS program was first approved. Our review of this portfolio discovered no previously unknown risks involved with absolute return investing.

Much of the allocation decision process is based on the impact new strategies or managers will have on the overall distribution of portfolio returns. In other words, the portfolio management team seeks to determine whether a new manager or strategy would help to mitigate or offset the volatility in some other manager or strategy (or in the portfolio as a whole) based on historical performance. Although qualitative factors are considered during due diligence, our understanding is that Staff utilizes quantitative tools for a significant portion of the modeling and allocation process.

We remain concerned that Staff may become over-reliant on such quantitative models for two reasons. First, historical performance data does not predict future returns with certainty. A manager who would have been a good diversifier over the last few years may not provide the same correlation benefits under a different economic, interest rate, or political regime in the future. Reliance on historical data may not properly anticipate the true risk in the portfolio, especially in times of market shocks. Further, absolute return strategies tend to be dynamic in nature and therefore historical results may not truly reflect that strategy's behavior in the future. Finally, many absolute return vehicles lack a track record that encompasses all economic environments, and it may be difficult to determine how a manager will fare in a different environment. The creation of strategy proxies (used in modeling new investment strategies under consideration for inclusion in the portfolio) is equally limited since they are largely based on historical data. Second, over-engineering the portfolio can lead to middling performance at a high cost. In a simplistic example, if the portfolio has a long bias (i.e., a higher correlation than desired to movements in markets as a whole), the temptation exists to offset that bias with a short-biased manager to reduce overall market risk. While this approach should work in theory, the net result of combining a broadly invested long manager with a broadly invested short manager, for example, could be a net performance of zero and a very high fee paid to both parties. As a result, we believe that sector allocations and manager selection need to be based as much on qualitative assessments of the true value they add as on purely quantitative projections. PAAMCO states that they do provide qualitative advice to Staff, in addition to quantitative modeling, but we believe that there is a chance such advice can become lost amid the preponderance of models and quantitative factors.

We recognize that the current RM ARS policy states that the portfolio should be managed through the use of quantitative tools, and we do not want to discount the value of such tools or to recommend a change to the policy language. However, we believe it is important to make sure that the qualitative input of Staff and the outside advisors will continue to override the quantitative factors when the aggregate wisdom of all parties involved recommends a different investment approach than what the models dictate. In addition, we encourage Staff to discuss internally and with the outside advisors whether the allocations recommended by the modeling process make fundamental sense even when the mathematical result may be compelling. Our understanding is that the qualitative inputs can, indeed, overrule the investment models, and we would encourage Staff to make policy language changes in the future as their experience grows.

As with any investment management organization, CalPERS is subject to the impact of departures by Staff. Unfortunately, CalPERS has a higher rate of attrition than a similar-sized investment management organization, largely due to the inability to offer compensation which is competitive with institutional investment managers. Investing in absolute return vehicles is often a "relationship" business, where the right reputation and contact base can make a significant impact in a portfolio's success. As a result, it could be argued that the performance of this portfolio is more subject to the retention of a few key individuals than is the case for many other CalPERS investments. However, this concern is mitigated by the presence of UBS and PAAMCO, who provide significant resources to the overall effort. In the event of significant Staff departures, UBS and PAAMCO should be able to provide assistance with portfolio monitoring and the training of replacement Staff, with the wind-down of the portfolio, or with the wholesale shift of the portfolio to external fund of funds managers.

# Conclusion

Staff is assisted and backed by two independent advisors and a third-party data collection and risk aggregator. Any function which Staff lacks the ability to provide on its own is covered one to three times over by the external advisors and data providers, as well as by other relationships such as the external fund of funds managers. In our opinion, there is no resource or tool which is not available to Staff through either its in-house capabilities or one of these external parties.

If we have any criticism to make, it is that we believe the internal portfolio construction process is heavily dependent on quantitative tools and historical performance. However, this concern is mitigated by the qualitative input provided by PAAMCO, UBS, and the RM ARS Advisory Group prior to any investment by the portfolio management team.

In the sections that follow, we have added separate commentary on the external advisors, UBS and PAAMCO, analyzing their organizations, people, processes, and resources as stand-alone entities. In addition, we have provided a point-by-point scoring table for all aspects of the RM ARS program.

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# Review of PAAMCO's People, Process, and Resources

# **Organization & People**

PAAMCO is an independent, employee-owned absolute return strategy advisory firm started in 2000 by its four founding partners, Jane Buchanan, Judy Posnikoff, James Berens, and William Knight, who all previously worked together at Collins Associates since 1997. All four founding members have PhDs in finance and economics. In 2005, the founding partners decided to extend the partnership to five other senior professionals. PAAMCO attempts to foster a positive work environment by allowing members of the team to grow and seeks to maintain long tenure among its employees through profit sharing and other incentives. PAAMCO has experienced very low turnover on an absolute basis and extremely low turnover on a relative basis compared to its peers. They have been SEC-registered since inception and currently manage in excess of \$11 billion dollars, plus \$9BN in advisory assets.

# **Investment Philosophy & Portfolio Construction**

The investment committee sets tactical asset allocation for each strategy on a quarterly basis. The committee creates expectations for each strategy developed from historical data, current sector spreads, and PAAMCO's forward-looking views which are input into a proprietary optimizer, as well as a Northfield optimizer. Views are made with a one-year time horizon and tactical moves tend to be gradual and small, involving macroeconomic scenarios, stress-tests, and sector expectational views.

The Strategy Allocation Subcommittee (SAS) reviews the optimizer outputs and adjusts the results with a heavy qualitative overlay, accounting for tail risks, asset flows, strategy flexibility and adaptability, as well as the capacity of appropriate managers within each sector. The SAS makes asset allocation recommendations to the Investment Management Committee, who then reviews, may adjust, and approves all final investments.

PAAMCO only invests in the following strategies:

- o Convertible fixed income arbitrage
- o Debt & mortgage hedging
- o Capital structure arbitrage
- o Distressed fixed income investing
- o Equity market neutral
- o Merger arbitrage
- o Long/short equity
- o Short-biased equity

# **Managers Selection & Monitoring**

PAAMCO believes that original research by an experienced and focused group of professionals will improve the manager selection process. Due diligence is also based on the requirement that absolute return managers provide PAAMCO with position level transparency to assess manager risk. Refusal is grounds for disqualification. The due diligence process addresses five major areas of concern, organizational/behavior, investment strategy and process, operations, overall risk, and the firm as a business. The sector specialist and research manager construct a research team of investment professionals to address areas of concern. The group is made up of various individuals with skill sets relevant to analyzing the areas of concern. Research process includes: background checks, reference checks, a due diligence questionnaire, review of fund documents and an audit, regulatory registrations, back up procedures, and portfolio attribution analysis. Specialists will also try to negotiate a preferential side letter which guarantee superior deal terms to PAAMCO as compared to the average client. In addition, an Independent Risk Analysis (IRA) is performed by a PAAMCO founding partner who has not previously been involved in the research process. If the manager passes the IRA, it's passed to the investment committee.

PAAMCO will evaluate and hire both new and experienced managers. Approximately 80% of managers are established while new managers have the relevant experience even while the organization is new. They do not see any benefit to artificially limiting the universe of absolute return managers based on age.

Average manager turnover is roughly 25% -- average to below average for the industry.

### **Risk Management**

PAAMCO demands position level transparency although they do not make it available to investors. Clients are not informed of the names of underlying managers, risk exposures, and portfolio level detail due to confidentiality agreements with the absolute return managers. Risk management is based on aspects such as long exposure, short exposure, net and gross exposure, sector concentration, geographic allocation, equity beta, market cap exposures, growth/value exposures, position concentration, liquidity, credit exposure, and duration. This allows the specialist to ascertain what risk a particular manager brings to the overall portfolio and its diversification benefits. They use a variety of tools including SQL Server for positions, optimizers and in-house models, RiskMetrics, Northfield, Bloomberg API, and proprietary (internally developed) analytics.

### Conclusion

PAAMCO is a large and established institutional absolute return strategy advisory firm with a solid organizational structure, low turnover among its employees, and more than \$10 billion in client assets. PAAMCO's four founding partners bring a unique approach

to absolute return investing due to their academic backgrounds combined with significant hedge fund and consulting experience. PAAMCO is one of the few funds of funds that is adamant about receiving portfolio level detail which enables a more robust understanding of the risks inherent in any portfolio. PAAMCO is one of the most stable and institutional quality absolute return advisors.

# Review of UBS Global Asset Management's People, Process, and Resources

# **Organization & People**

Alternative and Quantitative Investments (A&Q) is wholly owned subsidiary of UBS Global Asset Management and was established in 2003, bringing together several disparate components of the UBS absolute return platform. Alternative Investment Solutions (AIS) is a unit within A&Q which services the CalPERS relationship. UBS is a large global organization involved in all aspects of absolute return vehicle management, including direct absolute return management and seeding, prime brokerage, administration, and risk management. This platform creates vast resources for the AIS unit to use. AIS currently oversees approximately \$44 billion, in both non-discretionary and discretionary assets, while A&Q's total assets are approximately \$67 billion.

Individuals are paid a base salary and bonus. There is one bonus pool set by management. They also have a deferred compensation plan in place for certain employees which vests over time.

AIS has experienced significant turnover especially at the more senior investment level over the past three years on both an absolute and relative basis.

## **Managers Selection & Monitoring**

AIS has one of the most robust strategy research, manager research, and monitoring platforms of any fund of hedge funds advisor. The investment process separates absolute return vehicles into four main strategy clusters or working groups and three non-strategy clusters for operational due diligence, asset allocation, and risk management. Each strategy cluster is handled by one analyst, one investment officer, and one senior investment officer. Analysts rotate through each strategy on 6 month intervals while simultaneously sitting on the operational due diligence or risk management clusters. AIS maintains offices in the USA, Europe, and Asia for manager and market research, and benefits from the UBS affiliate absolute return portfolio administrator who is responsible for all NAV calculations done for their internal funds.

AIS research process begins first with strategy research in order to understand the drivers of risk and return. This establishes a framework for manager research to understand the underlying strategies utilized by managers based upon these factors and their outlook. The group seeks to identify changes in strategies and adapt research by monitoring macro factors and market technical indicators. As one of the largest absolute return managers in the world, AIS has a competitive advantage in sourcing new managers. AIS has developed a proprietary system called "Octane" which encompasses every aspect of the manager selection and monitoring process including quantitative, qualitative, operational, risk management, and NAV calculations done by the administrator. The strategy research, sourcing, and Octane software all facilitate and augment their manager research

process which includes several meetings with managers. Analysts go through manager portfolios, portfolio management, and risk control processes and then conduct peer group analysis. If the manager is approved through this initial due diligence phase it will then be passed onto the Manager Approval Committee consisting of SIO's and the CIO. If recommended, managers move to the operational due diligence team and will either receive a fail, qualify or pass score. The operational due diligence group looks at a variety of issues including valuation methodology, cash policies, IT systems, and disaster recovery etc. If the firm fails any of these screens, UBS will work with it to enhance its operational controls and move it to qualify or pass if processes are improved. Once this step is completed, UBS conducts security checks and continues to monitor each manager. The managers are then sent back to the Manager Approval Committee.

AIS has experienced above-average manager turnover in its portfolios, with recent turnover running around 40% in their fund of fund portfolios. While this level of turnover is not abnormally high, it does call into question the quality of manager selection in prior years.

### **Risk Management**

AIS focuses on analytical decomposition of fund performance. The group utilizes performance-based analysis of portfolio risks and aggregate measures of manager risk at the portfolio level. This is achieved through the development of multi-factor models to explain performance in both normal and stress environments. A strictly quantitative process is employed and the firm does not utilize underlying holdings to any significant degree.

### Conclusion

UBS AIS is one of the largest hedge fund of fund managers in the world, and is able to leverage the UBS platform for more robust manager selection and monitoring processes than the typical absolute return strategy advisory firm. However, AIS has experienced moderate personnel turnover which is a cause for concern.

Strategy Evaluation: CalPERS Risk Managed Absolute Return Strategy

### **Organization (0-100)**

SCORE:

**COMMENTS:** 

Ownership/Incentives (0-30)

Direct Ownership/Phantom Stock **Profit Sharing** Performance Bonus Depth of Incentives

Employees receive performance bonus only.

Score: 5

Team (0-25)

Communication

Role of Manager, Research, and Operations Longevity of Team

Score: 20

Quality of Key Professionals (0-15) Experience

Quality of Leadership Quality of Education

Score: 15

Team currently is appropriate given size of operation and portfolio. There is a lead portfolio manager, backed up by a quantitative analyst and sufficient junior staff. Portfolio manager is monitored by RM ARS Advisory Group and is advised by two outside fund of hedge funds managers. Newer members of the team were added quite recently and are fairly inexperienced. Communication links are informal and proximity of team members is close.

Experience, education, and technical skills of portfolio manager, investment committee, and quantitative analyst are excellent. Key advisors from UBS and PAAMCO are among the best in the business. Portfolio management team understands risks and issues to be monitored or resolved regarding strategy. Appropriately concerned about process, reporting, and monitoring.

Turnover of Senior Professionals (0-15) Low (<10%), Medium (<20%), High (>20%)

Score: 0

Commitment to Improvement (0-15)
Clear Mission
Re-investment
Process Enhance

Score: 15

Staff turnover for CalPERS is high at both the senior and junior levels, including the departure of the SIO for Global Equities, the CIO, and the CEO over the last few months. We also note that the prior CIO departed approximately 3 years ago. Lack of long-term retention incentives lead some staff to consider the organization as a "stepping stone" to better compensation in similar positions elsewhere. Turnover for this strategy is a risk. However, the two external advisors can assist Staff with the continuation or termination of this portfolio in the event of wholesale turnover in key personnel.

Strategy has clear mission and objectives. Resources are sufficient to the current tasks assigned to team, and support exists within the organization to add staff or other resources if strategy expands or other demands warrant. Outside advisors have a significant on-going effort to re-invest in their own research and other capabilities, which directly impacts the internal Staff.

# Philosophy/Process (0-100)

SCORE:

Market Anomaly/Inefficiency (0-40)
Permanent or Temporary
Clear Identification
Where and How Add Value
Empirical or Academic Evidence to
Support

Score: 40

Information (0-15)
Unique Sources, Unique Processing

Score: 15

#### **COMMENTS:**

The strategy seeks to find and invest in a variety of external absolute return portfolios that should generate consistently positive returns with as little market correlation as possible. The portfolio operates under the premise that smaller, more nimble, and less constrained absolute return managers can add value in ways that traditional long-only managers cannot.

The portfolio manager and investment committee are able to shift assets as necessary across the broad spectrum of available absolute return strategies, without a requirement that the total portfolio mirrors the universe of investment opportunities or any absolute return industry benchmark allocations.

Highest score given as this is a portfolio that has consistently and significantly exceeded its mandate, and has the resources in place to generate superior returns in the future.

Program seeks out and invests in a variety of absolute return portfolios that are evaluated both on their own merits and on the basis of how they contribute to the performance of the overall blended RM ARS performance. Each portfolio invests slightly or significantly differently from the others, and seeks to exploit some market anomaly or information advantage.

Added together, this combination of unique information sources and portfolio management approaches has been very successful.

Buy/Sell Discipline (0-15)

Disciplined/Structured Process Quantitative and Qualitative Inputs

Score: 12

Portfolio Construction (0-15)

Benchmark Orientation Risk Controls Ongoing Monitoring

Score: 15

Managers are hired and fired based on a process that includes input from two third-party advisors, on-site due diligence, and a review by the RM ARS Advisory Group. Internal process is highly reliant on quantitative process for portfolio construction, although outside advisors add a significant element of qualitative input on both manager selection and portfolio construction.

Portfolio construction techniques and monitoring are very good with internally developed and maintained systems. Monitoring of all absolute return manager performance is conducted on an on-going basis, and managers can be hired and fired quickly as events or performance warrant.

Portfolio does not have a traditional benchmark like most other PERS portfolios, but is charged with outperforming short term cash interest rates plus a performance hurdle. As a result, the portfolio is engineered to generate consistently positive returns and the portfolio management team and outside advisors have many tools in place to help construct a portfolio with the required distribution of expected returns.

The absolute return nature of the portfolio should result in consistently positive performance for the CalPERS Total Fund, regardless of the current inflation, interest rate, or macroeconomic environment.

Recent performance over the past year has not held up to this standard, but does not impact our score. First, the review is based on a qualitative assessment of the team's ability to add value in the future. Second, the trailing year's performance is largely a function of a highly volatile and abnormal market.

Quality Control (0-15)

Return Dispersion

Performance Attribution

Performance Consistency

Style Drift

Score: 15

The process has tight risk controls built in, and is independently-monitored within the Unit through a separate reporting line to the SIO-Global Equity and SIO-AIM. Within the portfolio management team there is good separation of responsibilities as well as back-up and cross-check functions provided by third party advisors. Wilshire has reviewed and had input into the drafting of the policy that covers portfolio management, research, and monitoring.

Returns have been positive in more than twothirds of monthly periods and have generally improved in their consistency as the portfolio has grown, matured, and diversified.

Style drift is not an issue with this portfolio as the portfolio management team is given the right to move assets between absolute return strategies as their research, and that of the third-party advisors, recommends.

Performance attribution and data collection is conducted by a third-party provider (IFS), and provides reports custom-tailored to PERS' specific needs. IFS also maintains an individual on-site in CalPERS' office to provide on-going data collection and risk monitoring services.

## **Resources (0-100)**

SCORE:

Research (Alpha Generation) (0-40)

Appropriate for Product Style Conducted Internally/Externally Ouantitative/Qualitative

Sufficient Databases and Models for Research

How Research Capabilities are Enhanced

Score: 40

Information/Systems Management (0-15)

Ability to Manage Large Flows of Data Appropriate Systems for Research and Management

Score: 15

#### **COMMENTS:**

Research is conducted both by the internal staff and by two third party advisors who function independently of each other.

Complete due diligence of each manager is conducted by UBS prior to recommendation to PERS, and then is mirrored by Staff prior to Due diligence of candidate investment. managers is often conducted by PAAMCO, as well, and the results are considered in Staff's ultimate investment decision.

Each underlying absolute return vehicle is expected to conduct on-going research into continual improvement in its own investment processes, and managers that fail to improve over time are removed from the portfolio.

Staff also conducts on-going research into quantitative tools for continual improvement in portfolio allocation process, and shares in the findings of such research with outside advisors.

Systems at both UBS and PAAMCO have been developed from the beginning to handle the large amounts of data involved in researching, evaluating, and monitoring absolute return vehicles, and are sufficient to their needs.

Services provided by IFS to handle in-house data collection are sufficient to Staff's needs, and continually improved by IFS.

Marketing/Administration/Client Service (0-15)

Dedicated and Knowledgeable Group Quality of Materials/Presentations of

RFPs

Responsiveness Measuring Client Satisfaction

Score: 15

Trading (0-30)

Turnover Relative to Process Sophistication of Trading Process Measurement of Trading Costs Soft Dollars in Client Interest

Score: 30 (maximum score assigned as trading is an external function, conducted by hedge funds hired.)

Since marketing and client service are not involved, unlike external sources for such a strategy, full resources of portfolio managers will be devoted to CalPERS, as the portfolio managers will not have to travel to service other clients or market to prospects.

End client (Investment Committee) has regular meetings that usually require SIOs, but Portfolio Manager, team, and third-party advisors are able to continue to operate in their absence.

Strategy invests in external absolute return portfolios, and therefore has no internal trading functions.

All external managers are evaluated by Staff, UBS, and, often, PAAMCO, regarding whether their trading functions are sufficient to their investment strategies. Absolute return vehicles that lack sufficient resources to trade effectively, or those that execute at costs which are too high for their style, are not considered for investment.

### Discussion

Wilshire's score on this strategy of 84% or 252 out of 300 possible points reflects the strong team and clear success demonstrated at managing the portfolio as charged. The main reasons for a less-than-perfect score overall are largely due to organizational-level issues such as senior management turnover and lack of retention incentives.